

REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 314
OPEN OUTDOOR FIRES AND INDOOR FIREPLACES AT COMMERCIAL AND
INSTITUTIONAL ESTABLISHMENTS

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AIR CURTAIN DESTRUCTOR AND FIREBOX PROCEDURES

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS**

**RULE 314
OPEN OUTDOOR FIRES AND INDOOR FIREPLACES AT COMMERCIAL AND
INSTITUTIONAL ESTABLISHMENTS**

SECTION 100 - GENERAL

- 101 PURPOSE:** To limit the emissions of air contaminants produced from open burning and from indoor fireplaces at commercial and institutional establishments.
- 102 APPLICABILITY:** Rule 314 is applicable to any open outdoor fire and burning in indoor fireplaces at commercial and institutional establishments that is conducted within Maricopa County.

SECTION 200 - DEFINITIONS: See Rule 100 (General Provisions and Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

- 201 AIR CURTAIN DESTRUCTOR -** A device designed to form a curtain of air over a firebox in which burning occurs that aids in more complete combustion through increases in turbulence and combustion time. Above ground air curtain destructors are the only type of air curtain destructor that are allowed in Maricopa County.
- 202 AREA A -** As defined in Arizona Revised Statutes (A.R.S.) § 49-541(1), the area in Maricopa County delineated as follows:

Township 8 North, Range 2 East and Range 3 East
Township 7 North, Range 2 West through Range 5 East
Township 6 North, Range 5 West through Range 6 East
Township 5 North, Range 5 West through Range 7 East
Township 4 North, Range 5 West through Range 8 East
Township 3 North, Range 5 West through Range 8 East
Township 2 North, Range 5 West through Range 8 East
Township 1 North, Range 5 West through Range 7 East
Township 1 South, Range 5 West through Range 7 East

Township 2 South, Range 5 West through Range 7 East
Township 3 South, Range 5 West through Range 1 East
Township 4 South, Range 5 West through Range 1 East

- 203 DANGEROUS MATERIAL** - Any substance or combination of substances that is capable of causing bodily harm or property loss unless neutralized, consumed, or otherwise disposed of in a controlled and safe manner.
- 204 DITCHBANK** - A lateral area not to exceed two and one half feet on either side of a ditch.
- 205 EMISSION REDUCTION TECHNIQUES (ERTs)** - Methods for controlling emissions from outdoor fires to minimize the amount of emissions output per unit of area burned. Types of ERTs include minimizing the material to be burned, preventing fire from spreading by lining the area and applying fire retardant foam or water, allowing the material to dry before burning, extinguishing the smoldering burns, burning in piles, and burning in the opposite direction of the wind.
- 206 FENCE ROW** - A lateral area not to exceed two and one half feet on either side of the centerline of a fence.
- 207 FIREBOX** - The chamber or compartment inside of an air curtain destructor wherein materials are burned.
- 208 FLUE** - Any duct or passage for air or combustion gases, such as a stack or chimney.
- 209 OPEN OUTDOOR FIRE OR OPEN BURNING** - Any combustion of any type of material outdoors, where the products of combustion are not directed through a flue. Open outdoor fires include agricultural, residential and prescribed burning. Purposes for fires can include prevention of a fire hazard, instruction in the methods of fighting fires, watershed rehabilitation, disease and pest prevention.
- 210 ORCHARD HEATERS** - A device which helps prevent frost damage to fruit trees by heating. An orchard heater consists of a pipeline heater system operated from a central control from which fuel is distributed by a piping system from a centrally located tank.
- 211 PROHIBITED MATERIALS** - Non-paper garbage from the processing, storage, service or consumption of food; books, magazines, fiberboard, packaging, rags, fabrics, office records, chemically treated or soaked wood; lead-painted wood; linoleum flooring, and composite counter tops; tires; animal wastes and carcasses, coal, liquid or gelatinous hydrocarbons tar, explosives or ammunition; oleanders, leaves, grass clippings, refuse; asphalt shingles or asphalt; tar paper; plastic and rubber products, including bottles for household chemicals;

plastic grocery and retail bags; waste petroleum products, such as waste crankcase oil, transmission oil, and oil filters; transformer oils; asbestos; batteries; anti-freeze; aerosol spray cans; electrical wire insulation; thermal insulation; polyester products; hazardous waste products such as paints, pesticides, cleaners and solvents, stains and varnishes, and other flammable liquids; plastic pesticide bags and containers; and hazardous material containers including those that contained lead, cadmium, mercury and arsenic compounds.

- 212 PUBLIC OFFICER** - Any elected or appointed officer of a public agency established by charter, ordinance, resolution, state constitution or statute, but excluding members of the legislature.
- 213 RESTRICTED-BURN PERIOD** - A condition declared by the Control Officer whenever meteorological conditions are conducive to an accumulation of carbon monoxide (CO), ozone, and/or particulate matter in exceedance of the standards or when air quality reaches other limits established by the Control Officer or when there is increased fire danger.
- 214 WOOD BURNING CHIMINEAS** - Chimineas are burning devices made from clay, aluminum, and steel and are used for warmth and aesthetics outside in yards and patios. Chimineas are designed to burn solid fuels.

SECTION 300 - STANDARDS

- 301 PROHIBITION - OPEN OUTDOOR FIRES:** It shall be unlawful for any person to ignite, cause or permit to be ignited, allow, maintain any open outdoor fire within the limits of Maricopa County, except as provided in Sections 302, 303, 304, 305 and in the Appendix of this rule.
- 302 OPEN OUTDOOR FIRES REQUIRED TO OBTAIN A BURN PERMIT:** The types of fires described in Subsections 302.1 and 302.2 of this rule require a burn permit that is obtained from the Control Officer prior to initiating the burn. Even after the Control Officer issues the burn permit, the person conducting the fire shall call both the fire department and the Control Officer to obtain permission to burn for each day. The Control Officer shall base his decision to approve or deny permission to burn on National Weather Service forecasts or other meteorological analyses that are indicative of a Restricted-Burn Period. See Section 402 of this rule for additional requirements regarding burn permits.
- 302.1** Fires Prohibited During Restricted- Burn Periods in Maricopa County, But Allowed From May 1 thru September 30 Each Year in Area A:
- a.** Open outdoor fires that are declared necessary by the County Agricultural Agent, when such fires have been determined as essential for the purposes of disease and/or pest prevention and

certified by actual investigations by the County Agricultural Agent.

- b.** Open outdoor fires for the control of weeds for the prevention of fire hazards, when such fires are declared necessary by a public officer in the performance of his official duties.
- c.** Open outdoor fires for fire fighting training and fire fighting training areas and structures. See Section 303.2 b of this rule for an exemption to this requirement.
- d.** Open outdoor fires for the burning of agricultural ditchbanks and fence rows where other reasonable mechanical, chemical, or other methods of removal are not available. In addition:
 - (1)** A high temperature mechanical burner must be used to burn ditchbanks, canal laterals, and/or fence rows.
 - (2)** Burning ditchbanks and/or fence rows is not allowed during a restricted-burn period from October 1 through February 29, unless such fires are required in the performance of an official duty of any public office, or such fires are necessary to thwart or prevent a hazard that cannot be properly managed by any other means, or are necessary for the protection of public health.
 - (3)** An on-site inspection by the Control Officer must be conducted to verify that only vegetative materials will be burned.
 - (4)** After an initial on-site inspection by the Control Officer has been completed, a Burn Permit may be issued for the same location(s) without having to conduct additional initial on-site inspections. However, periodic, unscheduled, on-site inspections may be conducted by the Control Officer on days when such burning has been authorized by the Burn Permit.
- e.** Open outdoor fires declared necessary by the Federal government or any of its departments, agencies, or agents, or the state or any of its agencies, departments, or subdivisions for the purpose of watershed rehabilitation or control through vegetative manipulation.

302.2 Fires Prohibited During Restricted-Burn Periods in Maricopa County and Also Prohibited From May 1 to September 30 Each Year in Area A:

- a. Open outdoor fires for the destruction of tumbleweeds for the prevention of fire hazards in cases where other reasonable methods are not available.
 - (1) Tumbleweeds must be cut, piled, and dried before burning.
 - (2) A high temperature mechanical burner may be used to burn un-dried tumbleweeds in situations where it is not feasible to allow natural drying.
 - (3) A high temperature mechanical burner must be used to burn tumbleweeds growing along canal laterals and fence rows.
- b. Open outdoor fires for the burning of indigenous scrub vegetation cleared for the purpose of agricultural operations in non-urban areas of low population where other reasonable methods are not available.
 - (1) The Control Officer shall issue such Burn Permit only once per geographical location.
 - (2) An on-site inspection must be conducted to determine removal of all other materials (e.g. wood, rubber, tires, dirt and metal) before the issuance of the Burn Permit.

303 OPEN OUTDOOR FIRES NOT REQUIRED TO OBTAIN A BURN

PERMIT: The person conducting any type of fire listed in Section 303 of this rule does not need to obtain a burn permit. However, the person conducting the fire may be required to contact the Control Officer for permission to burn prior to igniting the fire when specified below in Subsections 303.1 through 303.3.

303.1 Fires Allowed At Any Time of The Year in Maricopa County or Area A:

- a. Cooking for immediate human consumption.
- b. Orchard heaters for frost protection in farming or nursery operations.
- c. Proper disposal of flags under 4 United States Code 8.
- d. The display of fireworks for recreational purposes or pyrotechnics for musical or cinematic/theatrical functions.

303.2 Fires Prohibited During Restricted- Burn Periods in Maricopa County:
The person conducting any type of fire listed in Subsection 303.2 of this rule shall first call the County Air Quality Updates Hotline to hear the recorded message or check local government web sites to determine whether a Restricted-Burn Period has been declared each day. If that is the case, then open outdoor burning is prohibited.

- a.** Fire extinguisher training. This exemption from needing a burn permit applies only when the training is limited to using a small amount of flammable liquid and a small container (i.e. a wastepaper basket or a flat pan).
- b.** Fire fighting training, training areas and training structures are exempt from needing a permit if the sole source of flame is a burner fueled by either liquefied petroleum gas or natural gas, with a British Thermal Unit (BTU) input per hour rating of less than 2,000,000 BTUs.
- c.** Testing potentially explosive-containing, flammable, or combustible products (e.g., automotive airbags, rocket motors, gas generators, and vehicular assemblies) in accordance with Department of Transportation (DOT) or Department of Defense guidelines. This exemption from needing a burn permit refers to testing of hazard classification, packaging performance, propagation, and/or mass fire, but only when testing area is controlled, is relatively small, and when testing is not considered to be nor is associated with the disposal of dangerous material.
- d.** Testing potentially explosive-containing products for commercial, military, and law enforcement uses. This exemption from needing a burn permit applies only when the testing is controlled, relatively small and not considered to be nor is associated with the disposal of dangerous material.
- e.** Disposal of dangerous material must be conducted in compliance with the Arizona Department of Environmental Quality's (ADEQ's) regulations.

303.3 Fires Prohibited During Restricted-Burn Periods in Maricopa County and Also Prohibited From May 1 Through September 30 Each Year in Area A:
The person conducting any type of fire listed in Subsection 303.3 of this rule shall first call the County Air Quality Updates Hotline to hear the recorded message or check local government web sites to determine whether a restricted-burn period has been declared. If that is the case, then open outdoor burning is prohibited.

- a. Warmth for human beings.
- b. Recreational purposes.
- c. Wood Burning Chimineas and outdoor pits.
- d. Branding of Animals.

304 OPEN OUTDOOR FIRES IN AN AIR CURTAIN DESTRUCTOR: Prior to conducting an open outdoor fire in an air curtain destructor shall obtain a Title V permit form ADEQ and a site specific Burn Plan approved by the Control Officer. See the Appendix to Rule 314 for further requirements for the use of air curtain destructors. See Section 406 of this rule for Burn Plan Applications and Conditions.

305 ADDITIONAL REQUIREMENTS FOR OPEN OUTDOOR FIRES ALLOWED PER SECTIONS 302, 303, and 304:

- 305.1** Prohibited materials cannot be burned in open outdoor fires except as provided in Subsections 303.2(a), 303.2(b), 303.2(c), 303.2(d) and 303.2(e).
- 305.2** Open outdoor fires cannot be conducted before the hours of 10 a.m. and after 5 p.m. from October 1 to March 31 and before the hour of 6 a.m. and after 6 p.m. from April 1 to September 30 except as provided in Subsections 302.1(c), 303.2(b), and 303.3.
- 305.3** Open outdoor fires cannot be conducted during any weekends or holidays except as provided in subsections 302.1(c), 303.1, 303.2(b), and 303.3.
- 305.4** Fire extinguishing equipment shall be available at all times during open outdoor fires.
- 305.5** An attendant shall be present at all times during open outdoor fires for the duration of the burn.
- 305.6** Open outdoor fires shall never be initiated with items that cause the production of black smoke.
- 305.7** An air curtain destructor must be used for the burning of certain vegetative materials greater than 6 inches in diameter and an on-site inspection must be conducted before burning.

306 PROHIBITION - BURNING IN INDOOR FIREPLACES: Burning in indoor fireplaces that use any fuels other than gaseous fuels, including gas logs, at commercial and institutional establishments is prohibited during Restricted-Burn

Periods in Maricopa County. The owner or operator of a commercial or institutional fireplace shall first call the County Air Quality Updates Hotline to hear the recorded message or check local government web sites to determine whether a Restricted-Burn Period has been declared. If that is the case, then burning is prohibited except if using gaseous fuels.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS FOR BURN PERMITS AND BURN PLANS

- 401 FEES REQUIRED:** A fee shall be charged for a Burn Permit or the approval of each site specific Air Curtain Destructor Burn Plan as set forth in Rule 280 (Fees) of these rules.
- 402 BURN PERMIT APPLICATION:** A person shall file with the Control Officer, on a form prescribed by the Control Officer, a Burn Permit application and the complete application fee as described in Rule 280 (Fees) of these rules. The Control Officer shall act on a Burn Permit application and shall notify the applicant within 14 calendar days of the filing of the completed application.
- 402.1** A separate Burn Permit application is required for each burn site location not contiguous to the location on the original Burn Permit application.
- 402.2** The Control Officer shall conduct an on-site inspection before issuing the Burn Permit.
- 402.3** The issuance of a Burn Permit does not relieve the permittee from any of the requirements of a fire department having jurisdiction, including but not limited to having the Burn Permit validated by such fire department.
- 402.4** Permission given by a Public Officer for setting any fire given by a public officer in the performance of official duty under Sections 300 through 304 of this rule shall be given in writing and a copy of the written permission shall be transmitted immediately to the Control Officer. The setting of any such fire shall be conducted in a manner and at such times as approved by the Control Officer, unless doing so would defeat the purpose of this exemption.
- 402.5** If a person has obtained a Title V Permit, a Non-Title V Permit, or a General Permit under Regulation II (Permits and Fees) of these rules that includes condition(s) regarding open outdoor fires, then such person shall not be required to obtain a separate Burn Permit from the Control Officer. An owner or operator of an air curtain destructor that has obtained a Title V permit from the ADEQ shall submit a burn plan for each burn site location to the Control Officer as described in the Appendix to Rule 314.

- 403 BURN PERMIT CONDITIONS:** The Control Officer may impose any permit conditions that are necessary to ensure compliance with Federal laws, State laws, or these rules. Burn Permit condition(s) may include, but are not limited to, burning hours, notification of intent to burn, and Burn Permit posting.
- 404 BURN PERMIT DENIAL:** The Control Officer shall deny a Burn Permit application if the material or operations do not meet the criteria described in this rule.
- 405 BURN PERMIT TERMS:** A Burn Permit shall be issued for the following terms:
- Disease/Pest Prevention: 30 days from date of issuance
 - Fire Hazard: 30 days from date of issuance
 - Tumbleweeds: 30 days from date of issuance
 - Ditchbank/Fence Row: 1 year from date of issuance
 - Fire Fighting Training/Structures: 1 year from date of issuance
- 406 BURN PLAN APPLICATION AND CONDITIONS:** In order to use an air curtain destructor, a person shall file with the Control Officer, on a form prescribed by the Control Officer, a Burn Plan application and the complete application fee as described in Rule 280 (Fees) of these rules. The Control Officer shall act on a Burn Plan application and shall notify the applicant within 14 calendar days of the filing of the completed application.
- 406.1** A separate, site-specific Burn Plan application is required for each burn site location not contiguous to the location.
- 406.2** A Burn Plan Application shall be site-specific and shall list the following, at a minimum:
- a. Notification of intent to burn;
 - b. The anticipated dates and hours of the burn;
 - c. The type and quantity of fuel that will be used;
 - d. The type of material burned;
 - e. The legal location, to the nearest township, range and section or latitude and longitude, to the nearest degree minute, street address, or parcel number;
 - f. The Burn Plan posting; and
 - g. The listing of the air curtain destructor's requirements as outlined in Section A of the Appendix to this rule.

- 406.3** The Control Officer shall conduct an on-site inspection before approving the Burn Plan Application.
- 406.4** The issuance of a Burn Plan does not relieve the permittee from any of the requirements of a fire department having jurisdiction, including but not limited to having the Burn Plan validated by such fire department.
- 406.5** The Control Officer may impose any conditions that are necessary to ensure compliance with Federal laws, State laws, or these rules.
- 406.6** The Control Officer shall deny a Burn Plan application if the material or operations do not meet the criteria described in this rule.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING:

501.1 The following information shall be provided to the Control Officer for each time that open burning occurs for persons and operations subject to Sections 302, 304 and Subsections 303.2 (c), (d) and (e). This information shall be provided on a daily basis either by writing, fax, or electronically and shall include:

- The date of the burn; and
- The type and quantity of fuel burned for each date open outdoor burning occurs; and
- The fire type such as a pile or windrow for each date that open outdoor burning occurs; and
- The legal location, to the nearest township, range and section, or latitude and longitude, to the nearest degree minute, street address, or parcel number.

502 RECORDS RETENTION:

502.1 Maricopa County shall retain permits issued for open burning available for inspection by the ADEQ for five years.

502.2 For each permit issued, Maricopa County shall have a means of contacting the person authorized by the permit to set an open fire, if an order to extinguish open burning is issued by either the County or ADEQ. Therefore the permit application must contain the name of a contact person and shall list a means of contacting that person.

503 PROGRAM REVIEW:

- 503.1** Maricopa County shall hold or attend a public meeting annually for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.
- 503.2** Maricopa County shall annually submit to the ADEQ a record of daily burn activity by May 15 of each calendar year.

APPENDIX TO RULE 314

AIR CURTAIN DESTRUCTOR AND FIREBOX PROCEDURES

- A. Air Curtain Destructor Requirements:** The following must be complied with prior to approval of an air curtain destructor by the Control Officer:
1. The length of the firebox must not exceed the length of the plenum.
 2. The firebox shall be lined with refractory materials.
 3. The depth of the firebox shall be of such a distance to allow all burning material to be below the curtain of air created by the air curtain destructor.
 4. The width of the firebox shall not extend beyond the length of the nozzle action.
 5. The firebox must have 4 stable, vertical sides.
 6. When air curtain destructor locations are changed, an inspection of the newly located air curtain destructor must be made by the Control Officer prior to burning.
- B. Equipment Set-Up:**
1. An owner or operator of an air curtain destructor shall use a firebox and not a pit or trench to conduct open outdoor burning.
 2. The equipment must be positioned so as to allow the blower's airflow to strike at a downward angle no less than 24 inches below the opposite rim of the firebox.
 3. There shall be at least 1,000 feet between any two air curtain destructors.
 4. An air curtain destructor shall be located at least 500 feet from any residence or building structure.
 5. An air curtain destructor shall be located at least 500 feet from any pipeline or fuel storage area.
 6. An air curtain destructor shall be located at least 250 feet from any power lines.
 7. Material that is not being worked or is being stockpiled to be burned at a later date by using an air curtain destructor shall be kept at least 75 feet from the air curtain destructor while the burn is taking place.

C. Operation of Blower:

1. The proper blower speed must be maintained according to manufacturer's specifications.
2. The blower must be operating when and as long as any material in the firebox is burning.

D. Loading of the Firebox:

1. When loading (feeding) the firebox, the material must not extend above the air curtain (blower airflow).
2. The loading of materials into the firebox must be discontinued at a minimum of 2 hours prior to the end of the designated burning hours. The blower must continue to operate until the end of the burning hours or until combustion is completed.
3. Adequate measures must be taken to assure that no emissions emanate from materials left in the firebox (i.e. when combustion is completed). All materials left in the firebox must be extinguished with water or covered over with a minimum of 1 foot of mineral soil.

E. Firebox Clean-Out: All materials removed from the firebox must be completely extinguished and all reasonable precautions taken to control emissions.

F. Burning Hours for Air Curtain Destructors: The following burning hours apply:

- April - September 6 a.m. - 6 p.m.
- October - March 10 a.m. - 5 p.m.

While complying with the above schedule, the permittee must also obtain permission from the Control Officer on each day of burning. Burning using an air curtain destructor is not authorized on weekends nor on holidays. Prohibited materials shall never be burned in an air curtain destructor.